

**COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, the information given herein is true, that I believe I am the original, first and sole (if only one name is listed below) or an or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: CLONED GENOMES OF INFECTIOUS HEPATITIS C  
VIRUSES AND USES THEREOF

which is described in: ☐ PCT International Application No. \_\_\_\_\_ filed \_\_\_\_\_  
☒ the attached application or ☒ the specification in application Serial No. 09/014,416 filed January 27, 1998  
(if applicable) and amended on \_\_\_\_\_

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information known to me which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56 (a).

I hereby claim foreign priority benefits under Title 35 United States Code, § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign applications(s) for patent or inventor's certificate or any PCT international applications(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

COUNTRY	APPLICATION	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC § 119
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s) or PCT International application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

Application Serial No.	Filing Date	Status: patented, pending, abandoned

I hereby claim the benefit under Title 35, United States Code §119(e) of any United States Provisional patent application(s).

Provisional Application Serial No.	Filing Date	Status: patented, pending, abandoned
60/053,062	18 July 1997	Pending

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

James C. Haight, Reg. No. 25,588; Robert Benson, Reg. No. 33,612; Jack Spiegel, Reg. No. 34,477; Susan S. Rucker, Reg. No. 35,762; David R. Sadowski, Reg. No. 32,808; Steven M. Ferguson, Reg. No. 38,448; Stephen L. Finley, Reg. No. 36,357; and John P. Kim, Reg. No. 38,514 all of the Office of Technology Transfer, National Institutes of Health, Box 13, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852.

I further direct that all correspondence concerning this application be directed to:

Patent Branch  
Office of Technology Transfer  
National Institutes of Health  
Box 13  
6011 Executive Boulevard, Suite 325  
Rockville, MD 20852  
Telephone: (301) 496-7056  
Fax: (301) 402-0220

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of first joint inventor: Masayuki Yanagi

Inventor's signature: *M Yanagi* Date: 3/19/98

Country of Citizenship: Japan

Residence: 257 Congressional Lane, #402, Rockville, Maryland 20852, U.S.A.

Post Office Address: 257 Congressional Lane, #402, Rockville, Maryland 20852, U.S.A.

Full Name of second joint inventor: Jens Bukh

Inventor's signature: *Jens Bukh* Date: 3/19/98

Country of Citizenship: Denmark

Residence: 7 Center Drive, MSC 0740, Bethesda, Maryland 20892, U.S.A.

Post Office Address: 7 Center Drive, MSC 0740, Bethesda, Maryland 20892, U.S.A.

Full Name of third joint inventor: Suzanne U. Emerson

Inventor's signature: *Suzanne U. Emerson* Date: 3/19/98

Country of Citizenship: United States of America

Residence: 18201 Woodcrest Drive, Rockville, Maryland 20852, U.S.A.

Post Office Address: 18201 Woodcrest Drive, Rockville, Maryland 20852, U.S.A.

Full Name of fourth joint inventor: Robert H. Purcell

Inventor's signature: *Robert H. Purcell* Date: 3/19/98

Country of Citizenship: United States of America

Residence: 17517 White Grounds Road, Boyds, Maryland 20841, U.S.A.

Post Office Address: 17517 White Grounds Road, Boyds, Maryland 20841, U.S.A.



*R.W. Bone*  
UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MAY 29, 1998

1998 JUN -4 P 2: 25  
PTAS

MORGAN & FINNEGAN, L.L.P.  
WILLIAM S. FEILER, ESQ. MORGAN & FINNEGAN LLP  
345 PARK AVENUE  
NEW YORK, NY 10154-0053



\*100676910A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT



THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/23/1998

REEL/FRAME: 9069/0126  
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

YANAGI, MASAYUKI

DOC DATE: 03/18/1998

ASSIGNOR:

BUKH, JENS

DOC DATE: 03/18/1998

ASSIGNOR:

EMERSON, SUZANNE U.

DOC DATE: 03/18/1998

ASSIGNOR:

PURCELL, ROBERT H.

DOC DATE: 03/18/1998

ASSIGNEE:

HEALTH AND HUMAN SERVICES, DEPARTMENT OF  
6011 EXECUTIVE BOULEVARD  
OFFICE OF TECHNOLOGY TRANSFER  
ROCKVILLE, MARYLAND 20852

SERIAL NUMBER: 09014416

FILING DATE: 01/27/1998

PATENT NUMBER:

ISSUE DATE:

9069/0126 PAGE 2

SEDLEY PYNE, PARALEGAL  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

MWD  
3-23-98

04-07-1998  
100676910

RECEIVED  
MAR 23 1998

PATENT  
Docket No. 2026-4276

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : M. Yanagi et al. Group Art Unit: To Be Assigned  
Serial No. : 09/014,416 Examiner: To Be Assigned  
Filed : January 27, 1998  
For : CLONED GENOMES OF INFECTIOUS HEPATITIS C VIRUSES  
AND USES THEREOF

jc525 U.S. PTO  
09/662454  
09/14/00

**RECORDATION FORM COVER SHEET**  
**PURSUANT TO 37 C.F.R. §§ 3.28 AND 3.31**

Assistant Commissioner for Patents  
BOX ASSIGNMENT  
Washington, D.C. 20231

Sir:

Please record the attached original documents or copy thereof.

1. Name of conveying party/parties:

Masayuki Yanagi, Jens Bukh, Suzanne U. Emerson and Robert H. Purcell

2. Name and address of receiving party/parties:

Name: Department of Health and Human Services

Internal Address: Office of Technology Transfer

Street Address: 6011 Executive Boulevard

City Rockville State Maryland Country USA

ZIP 20852

[ ] Additional names and addresses attached.

3. Nature of Conveyance:

[X] Assignment [ ] Merger [ ] Security Agreement

[ ] Change of Name [ ] Other \_\_\_\_\_

Execution Dates: March 18, 1998

03/31/1998 TTU11 00000014 09014416 40.00 DP  
01 FC:581

4. Application Number(s) or Patent Number(s):

[ ] This document is being filed together with a new application filed concurrently herewith and which was executed on \_\_\_\_\_.

[ X ] Patent Application No.(s) 09/014,416.

5. Address all future communications to:

William S. Feiler, Esq.  
MORGAN & FINNEGAN, L.L.P.  
345 Park Avenue  
New York, New York 10154-0053

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41 and 1.21(h)):

\$40.00 per property x 1 property(ies) = \$ 40.00

[X] A check in the amount of \$ 40.00 to cover the recordation fee is enclosed.

[ ] Charge fee to Deposit Account No. 13-4500. Order No. \_\_\_\_\_.

8. [X] The Commissioner is hereby authorized to charge any additional fees which may be required for this recordation, or credit any overpayment to Deposit Account No. 13-4500. Order No. 2026-4276.

9. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: March 20, 1998

By: Richard W. Bork  
Richard W. Bork  
Registration No. 36,459

Mailing Address:

MORGAN & FINNEGAN, L.L.P.  
345 Park Avenue  
New York, New York 10154-0053  
(212) 758-4800  
(212) 751-6849 Facsimile

Total number of pages comprising this cover sheet 2

ASSIGNMENT

WHEREAS, we, Masayuki Yanagi, a citizen of Japan, residing at 257 Congressional Lane, #402, Rockville, Maryland 20852, U.S.A.; Jens Bukh, a citizen of Denmark, residing at 7 Center Drive, MSC 0740, Bethesda,, Maryland 20892, U.S.A.; Suzanne U. Emerson, a citizen of the United States of America, residing at 18201 Woodcrest Drive, Rockville, Maryland 20852, U.S.A. and Robert H. Purcell, a citizen of the United States of America, residing at 17517 White Grounds, Road, Boyds, Maryland 20841, U.S.A. have invented CLONED GENOMES OF INFECTIOUS HEPATITIS C VIRUSES AND USES THEREOF for which Letters Patent of the United States of America has been filed on January 27, 1998, under Serial No. 09/014,416; and

WHEREAS, we are the applicants named in the above-identified application for Letters Patent; and

WHEREAS, the conditions under which said invention was made are such as to entitle The Government of the United States of America, as represented by the Secretary, Department of Health and Human Services (hereinafter THE GOVERNMENT) under Paragraph 1(a) of Executive Order 10096 to the entire right, title, and interest herein, both domestic and foreign; and

WHEREAS, THE GOVERNMENT is desirous of acquiring all domestic and foreign right, title, and interest in the above-mentioned invention described in the application for Letters Patent; and

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to THE GOVERNMENT, as represented by the Secretary, Department of Health and Human Services, the full and exclusive rights in and to said invention in the United States of America and within each and every foreign country in which THE GOVERNMENT elects to file and the entire right, title, and interest in and to such applications, and any continuations, continuations-in-part, divisions, reissues or extensions thereof, and including priority rights as may be filed in the United States of America and foreign countries, and such Letters Patent as may be granted to be held by THE GOVERNMENT to the end of the term for which the same would have been held by the inventors had this assignment not been made.

We further agree to make, execute, and deliver to the Secretary, Department of Health and Human Services, upon request, any and all papers, documents, affidavits, or other instruments that may be necessary in the prosecution of any application or applications for improvements or reissues of Letters Patent, and to assist THE GOVERNMENT in every way as may be requested in protecting said invention, provided that any expense of extending such assistance shall be paid by THE GOVERNMENT.



IN WITNESS WHEREOF we subscribe our hands and seals on the dates shown below:

M. Yamagi  
Masayuki Yanagi

Date 3/18/98

County of Montgomery  
State of Maryland SS:

Subscribed and sworn to before me this 18 day of March, 1998.

Joan D. Sutter  
Notary Public

Jens Bukh  
Jens Bukh

Date 3/18/98

County of Montgomery  
State of Maryland SS:

Subscribed and sworn to before me this 18 day of March, 1998.

Joan D. Sutter  
Notary Public

IN WITNESS WHEREOF we subscribe our hands and seals on the dates shown below:

Suzanne U. Emerson  
Suzanne U. Emerson

Date 3/18/98

County of Montgomery  
State of Maryland SS:

Subscribed and sworn to before me this 18 day of March, 1998.

Joan D. Sutton  
Notary Public

Robert H. Purcell  
Robert H. Purcell

Date 3/18/98

County of Montgomery  
State of Maryland SS:

Subscribed and sworn to before me this 18 day of March, 1998.

Joan D. Sutton  
Notary Public

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Masayuki Yanagi, et al.  
Serial No. : 09/014,416 Group Art Unit: To be assigned  
Filed : January 27, 1998 Examiner: To be assigned  
For : CLONED GENOMES OF INFECTIOUS  
HEPATITIS C VIRUSES AND USES THEREOF

Assistant Commissioner for Patents  
Washington, D.C. 20231

ASSOCIATE POWER OF ATTORNEY

Dear Sir:

Pursuant to the provisions of 37 CFR 1.33 and 1.34 and MPEP 402.02, the undersigned attorney of record hereby appoints the following as associate attorneys to prosecute this application, to receive the patent, and to transact all business in the Patent and Trademark Office in connection with the above-identified application:

Kurt E. Richter (Reg. No. 24,052); Eugene Moroz (Reg. No. 25,237); William S. Feiler (Reg. No. 26,728); Israel Blum (Reg. No. 26,710); Bartholomew Verdirame (Reg. No. 28,483); Maria C. H. Lin (Reg. No. 29,323); Eugene C. Rzucidlo (Reg. No. 31,900); Mary J. Morry (Reg. No. 34,398); Kathryn M. Brown (Reg. No. 34,556); Leslie A. Serunian (Reg. No. 35,353); Dorothy R. Auth (Reg. No. 36,434); Richard W. Bork (Reg. No. 36,459); and David V. Rossi (Reg. No. 36,659) of Morgan & Finnegan, L.L.P. whose address is: 345 Park Avenue, New York, New York 10154.

Respectfully submitted,

Date

20 March 1998



Susan S. Rucker

Registration No. 35,762

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